

IN THE SPECIFICATION

Please replace the paragraph beginning at page 5, line 22, with the following rewritten paragraph:

Referring to Fig. 1, spent nuclear fuel 1 is placed in a cladding tube 2 made of SUS316 stainless steel so as to be kept therein in a state of a spent fuel rod 3, which is, together with the cladding tube 2, subjected to mechanical shredding, as shown in Fig. 1(a). Subsequently, the wastes thus shredded are separated into wastes A consisting of the spent nuclear fuel 4 only and radioactive steel-based metal wastes B including a mixture of hulls 5 as shredded pieces of the cladding tube 2 and magnetically inseparable spent nuclear fuels 6, as shown in Fig. 1(b). The wastes A consisting of the spent nuclear fuels 4 only are recycled through reprocessing steps, as shown in Fig. 1(e).

Please replace the paragraph beginning at page 5, line 31, with the following rewritten paragraph:

On the other hand, the wastes B including a mixture of the hulls 5 and the spent nuclear fuels 6 are subjected to melting separation treatment, as shown in Fig. 1(d). In other words, the wastes B are put in a melting furnace 11 and then heated up to a melting point thereof or above, more specifically heated to 1500-1650 degrees centigrade. Ambient atmospheric air 9 in this case may be an ordinary atmospheric air, or otherwise, the one into which a slight amount of argon gas is introduced, so that oxygen in the ambient gets involved in this melting bath so as to oxidize uranium, thus forming slag by this uranium oxide thus produced. In the meantime, in the event that uranium already exists as oxide, then uranium does not need to be oxidized, and thus the existing uranium oxide forms slag at it is, so that uranium component 7 and metal component 8 are formed as different layers, respectively, represented by C.

Please replace the paragraph beginning at page 6, line 13, with the following rewritten paragraph:

After the uranium component 7 and the metal component 8 are separated in the above-mentioned manner, the uranium component 7 is recycled as nuclear fuel through a reprocessing step, as shown in Fig. 1(e), while only the stainless-based metal component 8 is treated as wastes, as shown in Fig. 1(f).

Application No. 10/632,791
Reply to Office Action of January 10, 2006